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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/817,235

04/02/2004

Dennis M. Brown

SP03-053

3064

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7590

02/14/2006

CORNING INCORPORATED

SP-TI-3-1

CORNING, NY 14831

EXAMINER

WONG, TINA MEI SENG

ART UNIT

PAPER NUMBER

2874

DATE MAILED: 02/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/817,235

Applicant(s)

BROWN ET AL.

Examiner

Tina M. Wong

Art Unit

2874

AM

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 5-7 and 9-11 is/are rejected.
- 7) ☒ Claim(s) 2-4, 8 and 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

This Office action is responsive to applicant's communication filed on 10 January 2006.

Corrections of the minor informalities are noted by the Examiner.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant Admitted Prior Art (AAPA).

In regards to claim 1, AAPA discloses a spool (10) comprising a hub (12) sandwiched between two flanges (14), where at least one of the flanges includes a smoothly curving arcuate fiber groove (15, 20) extending substantially to the outer edge of the flange and the groove being capable of reversing the direction of the fiber (20). (Background of Invention, Figure 1, Figure 2)

But AAPA fails to disclose the fiber groove on the side facing the hub. However, although the placement of the groove is on the opposite side of the flange, facing out from the hub, the groove facing out from the hub performs the same function as the groove facing the hub. By either placement of the groove, the groove is capable of reversing the direction of the fiber. Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to have the groove on the side facing the hub or on the side facing away from the hub, since the placement of the groove in either position performs the same function.

In regards to claim 5, AAPA discloses a plurality of grooves (20), each with a different bend radius, and at least one of the fiber grooves extending to the outer edge of the flange.

Referring to Applicant's prior art Figure 2, groove 20 has 3 different bend radii. Since Applicant has claimed each groove to have a different bend radius and groove 20 has 3 different bend radii, Applicant's prior art Figure 2 shows a plurality of connected grooves.

In regards to claim 6, AAPA discloses the grooves to be semicircular and have different radii of curvatures.

In regards to claim 7, AAPA discloses a fiber groove (20) that allows the fiber to reverse in direction so that the fiber leads point in the same direction.

Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,802,237 to Pulido.

In regards to claim 9, Pulido provides two flanges and a hub, and then assembling the hub and flanges into a spool. But, Pulido fails to disclose trimming the flange preforms to a desired size. However, trimming any object or preform in order to obtain the desired size would have been obvious at the time the invention was made to a person having ordinary skill in the art, since it is always preferred to obtain a desired size on the basis of suitability for the intended use.

In regards to claim 10, Pulido discloses winding the fiber around the hub.

In regards to claim 11, Pulido discloses a flange with at least one fiber groove that extends to the outer edge of the flange. However, Pulido fails to disclose trimming the flange preform to form a flange of a specified diameter. However, trimming any object or preform in order to obtain the desired size would have been obvious at the time the invention was made to a

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person having ordinary skill in the art, since it is always preferred to obtain a desired size on the basis of suitability for the intended use.

Allowable Subject Matter

Claims 2-4, 8 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

In regards to claims 2-4 and 12, Applicant's arguments have been carefully studied and re-evaluated by the Examiner. The arguments and explanation of the criticality of the specific range of angle values are persuasive and the rejections based upon prior art made of record in the previous Office Action are withdrawn.

In regards to claim 8, Applicant's argument has been carefully studied and re-evaluated by the Examiner. The prior art of record fails to show or reasonably suggest all of the limitation of the base claim and further show a flange with at least two grooves, one groove allowing the exiting fiber to reverse direction so that the fiber leads point in the same direction and another groove allowing the fiber leads to point in opposing directions.

Response to Arguments

Applicant's arguments with respect to claims 2-4, 8 and 12, filed 10 January 2006, have been fully considered and are persuasive. The rejection set forth in the previous Office action, mailed 31 October 2005, paper number 102005, has been withdrawn.

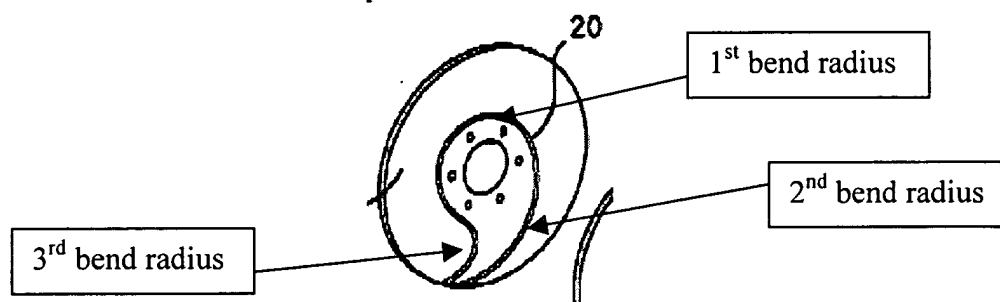
Applicant's arguments with respect to claims 1, 5-7 and 9-11, filed 10 January 2005 have been fully considered but they are not persuasive.

Applicant argues the claimed flange discloses an additional and different function than the flange in the prior art relied upon by the Examiner. However, the argument does not reflect the claim language. Although the flange disclosed by Applicant may preform an additional function, Applicant has not claimed this flange to perform this additional functionality. Applicant simply states in independent claim 1, a flange with a fiber groove capable of reversing the direction of the fiber.

Applicant further argues the prior art relied upon by the Examiner does not disclose a fiber groove capable of reversing the direction of the fiber. However, it has been held that the recitation that an element is “capable of” performing a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense.

In re Hutchison, 69 USPQ 138

Applicant also argues the prior art relied upon by the Examiner fails to show a plurality of grooves on one flange. However, the Examiner disagrees. Applicant claims each groove on the single flange to have a different bend radius (R_i). Referring to Applicant’s prior art Figure 2 below, it can be seen that three different radii are on the single flange. Each radius is connected together creating three grooves, each with a different bend radius, all connected together.



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Applicant lastly argues the prior art flange relied upon by the Examiner is not capable of being trimmed. The prior art flanges are molded or machined to a specific size for a specific use. However, the Examiner disagrees. Applicant states in the argument the prior art flanges are machined. By definition, machining means “to cut, shape, or finish by machine.” (*The American Heritage® Dictionary of the English Language, Fourth Edition*) Therefore, when machining a flange or any other component, the machine would take a preform (“an object that has been subjected to preliminary, usually incomplete shaping or molding before undergoing complete or final processing”, *The American Heritage® Dictionary of the English Language, Fourth Edition*) as claimed by Applicant and cut and shape and trim the preform to the appropriate size.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

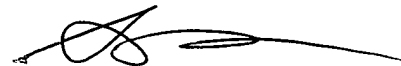
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tina M. Wong whose telephone number is (571) 272-2352. The examiner can normally be reached on Monday-Friday 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



TMW



**SUNG PAK
PRIMARY EXAMINER**